WE CLAIM:

1. (original) An enhanced T-gate comprising:

a free T-gate, said free T-gate having a neck portion, said neck portion having a height, and a T-bar portion, said T-bar portion having overhangs extending beyond said neck portion by a first width; and

an insulator layer disposed on each side of said neck portion, forming a sandwich structure with said neck portion along a width direction of said free T-gate, and wherein said insulator layer only partially filling up a volume defined therebetween said overhangs and a surface on which said free T-gate is standing.

2. (original) The enhanced T-gate of claim 1, wherein in said sandwich structure said insulator layer creating spacers on each side of said neck portion, wherein said spacers having a second width, said second width being less than said first width of said overhangs, whereby that part of said volume which is further from said neck portion than said second width is not filled with said insulators.

3. (original) The enhanced T-gate of claim 1, wherein in said sandwich structure said insulator layer having approximately a C-shape, conformally adhering to a bottom surface of said overhangs, to said neck portion, and to said surface on which said free T-gate is standing, said insulator layer having a thickness which is less than half of said height of said neck portion, wherein said insulator layer covering said surface on which said free T-gate is standing and said bottom surface of said overhang to a distance from said neck portion substantially equal to said first width, whereby that part of said volume which is inside said C-shape is not filled by said insulator.

4. (original) The enhanced T-gate of claim 1, wherein said insulator layer is a low-k material.

5. (original) The enhanced T-gate of claim 4, wherein said low-k material is a compound of materials selected from the group consisting of SiCO, SiCOH, SiCH, these silicon containing materials with Si up to 100% replaced by Ge and these silicon containing materials further containing atoms of materials selected from the group consisting of N and F.

6. (original) The enhanced T-gate of claim 4, wherein said low-k material is selected from the group consisting of diamond-like carbon, fluorinated amorphous carbon, insulating inorganic oxides, inorganic polymers, organic polymers, photosensitive organic materials, fluorinated organic materials, other carbon-containing materials, hybrid organo-inorganic materials and silsesquioxane-based materials.

7. (original) A MODFET device comprising an enhanced T-gate, said enchanted T-gate further comprising:

a free T-gate, said free T-gate having a neck portion and a T-bar portion, said T-bar portion having overhangs extending beyond said neck portion; and

an insulator layer disposed on each side of said neck portion, forming a sandwich structure with said neck portion along a width direction of said free T-gate, and wherein said insulator layer only partially filling up a volume defined therebetween said overhangs and a surface on which said free T-gate is standing.

8. (original) The MODFET device of claim 7, further comprising a self-aligned source/drain metallurgy, wherein a borderline of said metallurgy is defined by said insulator layer.

9. (original) An integrated circuit comprising at least one MODFET device, said MODFET device comprising an enhanced T-gate, wherein said enchanted T-gate further comprising:

a free T-gate, said free T-gate having a neck portion and a T-bar portion, said T-bar portion having overhangs extending beyond said neck portion; and

an insulator layer disposed on each side of said neck portion, forming a sandwich structure with said neck portion along a width direction of said free T-gate, and wherein said insulator layer only partially filling up a volume defined therebetween said overhangs and a surface on which said free T-gate is standing.

10. (original) The integrated circuit of claim 9, wherein said at least one MODFET further comprising a self-aligned source/drain metallurgy, wherein a borderline of said metallurgy is defined by said insulator layer.

11. (original) The integrated circuit of claim 9, further comprising a multilevel interconnect structure of low-k interconnect dielectrics.

12. (original) The integrated circuit of claim 11, wherein said low-k interconnect dielectrics leaving voids in said volume only partially filled up by said insulator layer.

13. (original) The integrated circuit of claim 11, wherein said low-k interconnect dielectrics are materials selected from the group consisting of SiCO, SiCOH, SiCH, these silicon containing materials with Si up to 100% replaced by Ge, diamond-like carbon, fluorinated amorphous carbon, insulating inorganic oxides, inorganic polymers and organic polymers.

14. - 30. (canceled)